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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/467,243 | 12/20/1999 | DONALD RUSSELL ELLIS | 3384.0342-01 | 2120 |
| 22852 | 7590 | 07/15/2004 | EXAMINER | |
| FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005 | | | YAO, KWANG BIN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2667 | 7 |

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/467,243

Applicant(s)

ELLIS ET AL.

Examiner

Kwang B. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1, 2, 4-6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 16, "Mc" is undefined; line 18, it is not clear what "M" refers to.

Claim 4, "said incoming and outgoing STM STS-W" lacks antecedent basis.

Claim Objections

2. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The limitations in lines 1-3 of claim 2 have been already recited in lines 15-17 of claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashi et al. (US 5,721,727) in view of Chang et al. (US 5,920,412).

Ashi et al. discloses a communication system comprising the following features: as depicted in Fig. 2, regarding claim 1, at each terminal (30-1, ... 30-4), inserting an outgoing signal onto said first transmission line (ACTIVE PATH) along a first direction (CWW) of transmission defined from said terminal (30-1, ... 30-4) towards the first adjacent terminal (30-1, ... 30-4), inserting said outgoing signal onto said second transmission line (RESERVED PATH) along a second direction (CW) of transmission defined from said terminal (30-1, ... 30-4) towards a second adjacent terminal (30-1, ... 30-4); at each said terminal (30-1, ... 30-4), receiving an incoming signal over said first transmission line (ACTIVE PATH) from said first adjacent terminal (30-1, ... 30-4), along said first direction (CWW) of transmission, and from said second adjacent terminal (30-1, ... 30-4) along said second direction (CW) of transmission; and operating said plurality of communication terminals (30-1, ... 30-4) according to a unidirectional protection protocol upon detection of a failure condition in said incoming signal; regarding claim 4, wherein each of said incoming and outgoing STM STS-W comprises a

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plurality of virtual tributaries VT. See column 1-2, and 4-6. Ashi et al. does not disclose the following features: regarding claim 1, communicating information over a BLSR SONET line switched ring having a plurality of communication terminals connected over a first and a second transmission line, wherein said incoming signal comprises an incoming non-ATM STS-W and an incoming ATM STS-Mc multiplexed in an incoming STS-N, and said outgoing signal comprises an outgoing non-ATM STS-W and an outgoing ATM STS-Mc, multiplexed in an outgoing STS-N, where $M+W=N$, and N, M, and W are integers indicative of the rates of said respective signals; regarding claim 2, wherein said incoming signal is an incoming asynchronous transfer mode (ATM) STS-Mc and said outgoing signal is an outgoing ATM STS-Mc. Chang et al. discloses the following features: regarding claim 1, as depicted in Fig. 4, communicating information over a BLSR SONET line switched ring having a plurality of communication terminals connected over a first and a second transmission line (column 7, lines 15-47), wherein said incoming signal (16d) comprises an incoming non-ATM STS-W (28) and an incoming ATM STS-Mc (32) multiplexed (26) in an incoming STS-N, and said outgoing signal comprises an outgoing non-ATM STS-W (28) and an outgoing ATM STS-Mc (32), multiplexed (26) in an outgoing STS-N, where $M+W=N$, and N, M, and W are integers indicative of the rates of said respective signals; regarding claim 2, wherein said incoming signal (16d) is an incoming asynchronous transfer mode ATM STS-Mc (32) and said outgoing signal is an outgoing ATM STS-Mc (32). See column 9-16. It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Ashi et al., by using the features, as taught by Chang et al., in order to provide an efficient and improved service in the communication system. See Chang et al., column 1, lines 30-39.

Allowable Subject Matter

5. Claims 4 and 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lu (US 5,815,490) discloses a SDH ring order path management.

Oka (US 5,757,774) discloses a network traffic protection system.

Goto (US 5,737,310) discloses a ring network system.

Yoshimura (US 5,712,846) discloses an order wire communication control method.

Ishibashi et al. (US 5,663,949) discloses a line protection switching system.

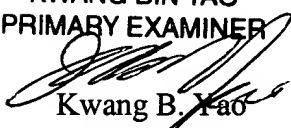
Lu (US 5,412,652) discloses a SONET ring subnetwork management method.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 703-308-7583. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER

Kwang B. Yao
July 12, 2004